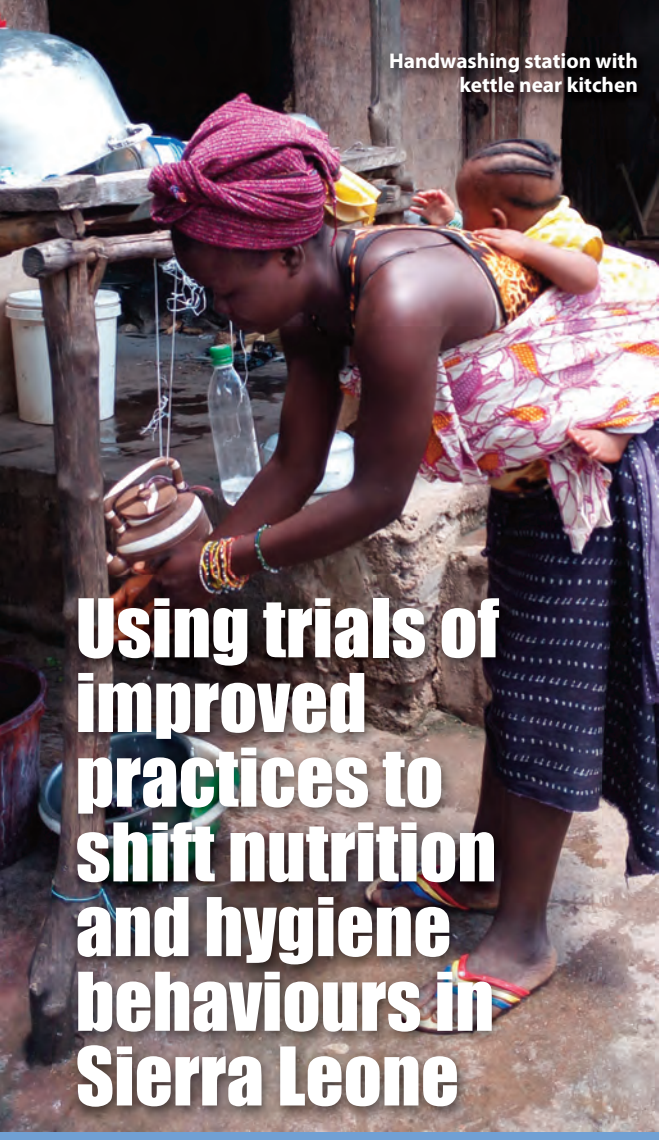

Handwashing station with kettle near kitchen

SPRING, Sierra Leone, 2016

Using trials of improved practices to shift nutrition and hygiene behaviours in Sierra Leone

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Location: *Sierra Leone*

What we know: Many nutrition and water, sanitation, and hygiene (WASH) interventions do not investigate the feasibility and acceptability of desired behaviour change with the intended beneficiaries.

What this article adds: SPRING/Sierra Leone conducted trials of improved practices (TIPs) with 24 households in Tonkolili District to test nutrition-sensitive WASH behaviours and selected complementary feeding behaviours for children aged 6-23 months. Intended beneficiaries were counselled on one or two household-specific, high-impact behaviours, with follow-up visits to identify barriers to and enablers of uptake. Creating handwashing stations and prioritising soap for handwashing were most tried and accepted (16/24 counselled). Prioritising consumption of colourful fruits and vegetables in complementary feeding were well received. Providing a child with a clean, enclosed play area to reduce exposure to animal faeces had low uptake (5/13 counselled); households preferred to sweep play areas and not restrict children's movement. Recommendations that required sharing resources between households were not well accepted. Findings from the TIPs informed the development of contextualised, behaviour-change communication materials that are being piloted in-country.

The USAID-funded Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) works in Sierra Leone to improve the uptake of behaviours related to nutrition, WASH and nutrition-sensitive agriculture. Based in Tonkolili District, SPRING's approach in Sierra Leone is to test and generate evidence on multi-sector approaches to social and behaviour change (SBC) through formative research and testing new SBC materials.

Many nutrition and WASH interventions rely on households changing their behaviours without much prior discussion with intended beneficiaries concerning why or how certain behaviours should be adopted or how they might affect specific members of the household. One way of improving uptake of behaviours is to consult with families on which behaviours are feasible and acceptable to them, then use the information to inform selection of behaviours to be promoted. The TIPs approach provides an opportunity to pre-test behaviours at the household level before they are widely promoted. By focusing on behaviour (what people do) rather than on knowledge (what people know or believe), TIPs engages families in dialogue and involves them as partners in designing the interventions that work best in their lives, providing an in-depth understanding of their preferences and capabilities, as well as the barriers and enablers they may encounter when they try specific new behaviours.

SPRING/Sierra Leone conducted TIPs research with 24 households in three communities in two chiefdoms in Tonkolili District. Prior to conducting the TIPS, SPRING identified two commodities, fish and pumpkin[1], based on identified nutrient gaps among pregnant and lactating women and children aged 6-23 months (1,000 days households). Pumpkin and fish are widely consumed in Tonkolili District, but community-level discussions showed that pregnant women and young children often avoided these foods. To explore the feasibility of using traditional SBC approaches for nutrition-sensitive agriculture, SPRING conducted formative research using barrier analysis to identify determinants of fish and pumpkin consumption by pregnant and lactating women and children aged 6-23 months. Informed by these results, SPRING conducted the TIPs research to investigate caregivers' willingness to try new practices related to complementary feeding and safe water and sanitation for very young children (baby WASH). The objectives of the TIPs research were to:

1. Test mothers' responses to recommendations for improving infant and young child feeding, WASH

[1] Literature Review on Pumpkin in Sierra Leone. SPRING. www.spring-nutrition. org/ publications/ briefs/literature-review-pumpkin-sierra-leone


SPRING, Sierra Leone, 2016

A father feeds his baby mango

and other desired practices; and determine which practices are most feasible and acceptable.
2. Investigate the constraints mothers face when trying to change feeding patterns, hygiene practices and other daily routines; and determine their motivations for trying and sustaining new practices.

The first step in the TIPs methodology is to create and prioritise a menu of evidence-based behaviour options using existing data and local knowledge. The menu of key behaviour options was used over the course of three visits per household, during which enumerators:

- Interviewed and observed the household of the primary caregiver to understand household context and current behaviours;
- Informed by initial observations, counselled and negotiated one or two new high impact behaviours that the household was *willing* to try; and
- Carried out follow-up visits to understand what behaviours households were able or not able to carry out and to learn about the most important barriers to and enablers of those behaviours which the household opted to try.

The third visit also allowed enumerators to elicit suggestions from the participants about how to modify and promote behaviours. Dialogue and data from the visits were used to develop tailored, contextually appropriate messages for the promotion of these behaviours to the target audiences. Priority behaviours included:

1. Feed pumpkin[2] to children aged 6-23 months at least two times per week;
2. Construct a handwashing station (such as a tippy tap);
3. Prioritise soap for handwashing and keeping soap by the handwashing station; and
4. Ensure a clean play space for children under two (such as a cloth (lapa) or penned area).

Findings

Creating handwashing stations and prioritising soap for handwashing were among the interventions most tried and accepted by households in the study. The TIPs team suggested both practices to 13 households: 14 (one unprompted, having learned from neighbours,) exhibited high interest and willingness to create handwashing stations and 12 agreed to prioritise handwashing (some households were interested in both practices). During the follow-up visit, the number of households that planned to create and maintain a handwashing station (16) actually exceeded the number of households that were counselled to try this practice (13), because three additional households decided to construct tippy taps after seeing their neighbours use one. Common reasons individuals gave for adopting this behaviour were that TIPs team members explained the behaviour and the simple construction process to participants in their home and that the materials (large water bottles and a nail) were readily available.

Prioritising consumption of colourful fruits and vegetables, such as mangoes, pumpkin, bananas and pineapple, as complementary foods were among the most acceptable behaviours to the households in the study. Participants felt it was relatively easy to teach young children to consume these foods, just as they had taught them to consume rice or porridge. Among the participants who were successful in adopting the practice, one major facilitating factor cited was the high availability of fruits such as mangoes (more available than pumpkin at the time of the study).

Not all the behaviours were equally likely to be suggested or adopted. Of the 24 households interviewed, 14 were counselled on creating a clean, enclosed play area for children to protect them from coming into contact with human and animal faeces, but only five were interested in trying this behaviour. At the follow-up visit, none of the participants who agreed to build a fenced-in play area had done so. Many participants explained that children were not used to their movement being restricted, expecting that the children would cry or that this would not be an appealing behaviour to them, despite initial interest. Many households preferred to continue sweeping the home environment periodically instead, explaining, "Seeing my child play with faeces and dirt, especially now that she crawls, motivated me to be sweeping regularly."

Including men, mothers-in-law and other members of the household in all three household visits seemed to facilitate the adoption of practices and encouraged full household participation in the various practices, especially the construction of the tippy tap. Recommendations that necessitated community or neighbourly sharing (e.g. splitting purchased soap and sharing the cost) were not widely appealing or commonly attempted. Overwhelmingly, participants told the research teams that they would continue all the practices they tried out.

SPRING's work in Sierra Leone is focused on testing approaches and disseminating lessons learned. Given that TIPs is formative research and not programme implementation, there are no plans to verify the long-term adoption of practices. As the six-year SPRING project will end in 2017, SPRING is working to pass information learned to the new Feed the Future (FTF) project in Sierra Leone, EAIN (Entrepreneurial Agriculture for Improved Nutrition), as well as other partners.

Conclusions and next steps

Although not statistically representative, the results of this small study indicate that it is an effective way to pre-test counselling for and promotion of new behaviours and to better understand the factors that may prevent or encourage households from adopting a new practice. The methodology engages people in dialogue and involves them as partners in designing the interventions that work best in their lives to achieve positive health outcomes for themselves, their families and their communities.

Furthermore, knowledge of household preference (for example, for sweeping rather than enclosed play spaces) is crucial information when designing a WASH-1,000 intervention. Because evidence suggests that clean play spaces, free from human and animal faeces, is a high-priority practice for improving infant and young child nutrition, SPRING will use this understanding to further contextualise this suggested behaviour and adapt it to make it more acceptable.

In order to create stronger, contextualised, behaviour-change materials for Sierra Leone, the team developed a behaviour-change framework (adapted from the Designing for Behaviour Change Framework[3]) for each recommended practice to guide analysis and the development of social and behaviour-change materials. A set of visual counselling cards, along with accompanying counselling messages, has also been developed and is being piloted among mothers' groups and during health education sessions at primary healthcare units in the district. SPRING plans to use the results from this research and other complementary research initiatives to inform the development of an SBC strategy to guide the nutrition and WASH-1,000 activities implemented by SPRING/Sierra Leone and collaborating local partners.

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[2] Given the range of WASH behaviours, project timeline and budget, pumpkin consumption only was prioritised as a complementary feeding behaviour.

[3] Food Security and Nutrition Network Social and Behavioral Change Task Force. 2013. Designing for Behavior Change: For Agriculture, Natural Resource Management, Health and Nutrition. Washington, DC: The Technical and Operational Performance Support (TOPS) Program. www.fsnnetwork.org/designing-behavior-change-agriculture-natural-resource-management-health-and-nutrition